

SEQUENCE LISTING

<110> EISEN, ANDREW

<120> DROSOPHILA RECOMBINATION-ASSOCIATED PROTEIN AND METHODS FOR USE

<130> 2567/1F496-US2

<140> US 10/031,893

<141> 2002-01-22

<150> US 60/144,736

<151> 1999-07-21

<150> PCT/US/00/19901

<151> 2000-07-21

<160> 32

<170> PatentIn version 3.0

<210> 1

<211> 1378

<212> DNA

<213> Drosophila melanogaster

<400> 1

```

agcgattacg gtagagatat ggtaatgcaa cggtggatgt gaactccttg gtttgcggtg      60
aatgcggttca acggtggatc ttcgcttgca cctttcgca tagacgacat acggatacag      120
atacagatac agaatggcct ccaacaacag tagtaccacc gatctggaca gccagggtcaa      180
tgtggaggat ttgccataa cggtcaaggt gaagtacatt ggttccgaag tggcacgtgg      240
cttatggggc attaagtata cgcgtcgtcc gggtgacata atgggtgggcg tggccaagaa      300
cctgccgccc aataagggtgc tgcccaactg cgaactgaag gtgtccaccg acggagtcca      360
gctggagatc atatcgcaa aggccagcat caatcactgg agctatccca tcgacacgat      420
ctcgtatggc gttcaggacc tgggtctacac aagggtcttt gccatgatcg tggatgaagga      480
cgagtcgagt ccgcatccct ttgagggttca cgccttcgtg tgcgacagtc gtgcgatggc      540
gcggaagttg acctttgccc tggccggccg ccttccagga ttactcgca cgggtcaagg      600
aggcaaccgg tgaggaggag ggcgaggcca cgcccagcga cactattaca cccacgcgac      660
acaagttcgc catcgatctg cgaacgccgg agaaatccag gctggcgaac tggagcagga      720
aacggaggcg tagttatcct ggtgatcctg cggtggctcc gtcaatgaga tgtgatgtgt      780
tagttactta acgtccagtg ttcactgtat ctgtaaattg tggttctctc acctggtagt      840
tgcccatcac agctaattac ccaaagccta agtggttaata cgatttgtaa acgatttcta      900

```

aaataaatta cgaatatggt atgtttggct atttgaattg ggctacaacc tgttgatatg	960
ccacttggca aaaaaaaaaa acgccagcac caattctttt acttctgttt cttgtgaccg	1020
acataaaaga tgcaccaaag ctgctattcc accagcgttc tttattccac gcttgttttc	1080
atcattttgt cttccgtaag ataaattacg taaagcacca caggcatttt tatgtatttc	1140
tggagaatca taagatagca gtcgaactaa tgggtggtata cctcccagag atcttgtacg	1200
ttgcttgttt ggatcatcca tgtagcacia atgctgtaga taggctgctg cattagcttt	1260
tatagcacta ctcggtttgc ttaaaaagct tattacttct gaaagatttg gatcccgcca	1320
tctcattgta gaacaaatat ctttttctga tccttcaatg taatcatcct tttcttcc	1378

<210> 2
 <211> 477
 <212> DNA
 <213> *Drosophila melanogaster*

<400> 2	
atggcctcca acaacagtag taccaccgat ctggacagcc aggtcaatgt ggaggatttg	60
cccataacgt tcaaggtgaa gtacattggt tccgaagtgg cacgtggctt atggggcatt	120
aagtatacgc gtcgtccggt tgacataatg gtgggcgtgg ccaagaacct gccgccaat	180
aaggtgctgc ccaactgcga actgaaggtg tccaccgacg gagtccagct ggagatcata	240
tgcgcaaagg ccagcatcaa tcaactggagc tatcccatcg acacgatctc gtatggcggt	300
caggacctgg tctacacaag ggtctttgcc atgatcgtgg tgaaggacga gtcgagtcgg	360
catccctttg aggttcacgc ctctgtgtgc gacagtcgtg cgatggcgcg gaagttgacc	420
tttgccctgg ccggccgcct tccaggatta ctgcgcacgg gtcaaggagg caaccgg	477

<210> 3
 <211> 507
 <212> DNA
 <213> *Drosophila melanogaster*

<400> 3	
acgacatacg gatacagata cagatacaga atggcctcca acaacagtag taccaccgat	60
ctggacagcc aggtcaatgt ggaggatttg cccataacgt tcaaggtgaa gtacattggt	120
tccgaagtgg cacgtggctt atggggcatt aagtatacgc gtcgtccggt tgacataatg	180
gtgggcgtgg ccaagaacct gccgccaat aaggtgctgc ccaactgcga actgaaggtg	240
tccaccgacg gagtccagct ggagatcata tgcgcaaagg ccagcatcaa tcaactggagc	300
tatcccatcg acacgatctc gtatggcggt caggacctgg tctacacaag ggtctttgcc	360

atgatcgtgg tgaaggacga gtcgagtcgg catccctttg aggttcacgc cttcgtgtgc 420
gacagtcgtg cgatggcgcg gaagttgacc tttgccctgg ccggccgcct tccaggatta 480
ctcgcgacgg gtcaaggagg caaccgg 507

<210> 4
<211> 159
<212> PRT
<213> Drosophila melanogaster

<400> 4

Met Ala Ser Asn Asn Ser Ser Thr Thr Asp Leu Asp Ser Gln Val Asn
1 5 10 15
Val Glu Asp Leu Pro Ile Thr Phe Lys Val Lys Tyr Ile Gly Ser Glu
20 25 30
Val Ala Arg Gly Leu Trp Gly Ile Lys Tyr Thr Arg Arg Pro Val Asp
35 40 45
Ile Met Val Gly Val Ala Lys Asn Leu Pro Pro Asn Lys Val Leu Pro
50 55 60
Asn Cys Glu Leu Lys Val Ser Thr Asp Gly Val Gln Leu Glu Ile Ile
65 70 75 80
Ser Pro Lys Ala Ser Ile Asn His Trp Ser Tyr Ile Pro Asp Thr Ile
85 90 95
Ser Tyr Gly Val Gln Asp Leu Val Tyr Thr Arg Val Phe Ala Met Ile
100 105 110
Val Val Lys Asp Glu Ser Ser Pro His Pro Phe Glu Val His Ala Phe
115 120 125
Val Cys Asp Ser Arg Ala Met Ala Arg Lys Leu Thr Phe Ala Leu Ala
130 135 140
Gly Arg Leu Pro Gly Leu Leu Ala Thr Gly Gln Gly Gly Asn Arg
145 150 155

<210> 5
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> misc_feature
<223> Antigenic peptide

<400> 5

Lys Asp Glu Ser Ser Pro
1 5

<210> 6
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> misc_feature
<223> Antigenic peptide

<400> 6

Thr Arg Arg Pro Val Asp
1 5

<210> 7
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> misc_feature
<223> Antigenic peptide

<400> 7

Arg Ala Met Ala Arg Lys
1 5

<210> 8
<211> 130
<212> DNA
<213> Mus musculus

<400> 8
ggacagtgtgta ttcacagaga tttggcagcc aggaatatcc tcctcactca cgggcgggatc 60
acaaagattt gcgatttcgg gctagccaga gacatcagga atgattcgaa ttacgtgggc 120
aaaggaaatg 130

<210> 9
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<221> misc_feature
<223> potential mutagenic oligonucleotide

<400> 9

ggacagtgta ttcacagaga tttggcagcc aggaata 37

<210> 10
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<221> misc_feature
<223> Primer

<400> 10
ggacagtgta ttcac 15

<210> 11
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<221> misc_feature
<223> Primer

<400> 11
ttgcgatttc gggctag 17

<210> 12
<211> 57
<212> DNA
<213> Drosophila melanogaster

<400> 12
tgtattcaca gaaatttggc agccaggaat atcctcactc acgggcggat cacaaag 57

<210> 13
<211> 41
<212> PRT
<213> Mus musculus

<400> 13

Cys Ile His Arg Asp Leu Ala Ala Arg Asn Ile Leu Leu Thr His Gly
1 5 10 15

Arg Ile Thr Lys Ile Cys Asp Phe Gly Leu Ala Arg Asp Ile Arg Asn
20 25 30

Asp Ser Asn Tyr Val Val Lys Gly Asn
35 40

<210> 14

<211> 20
<212> PRT
<213> Drosophila melanogaster

<400> 14

Cys Ile His Arg Asn Leu Ala Ala Arg Asn Ile Leu Leu Thr His Gly
1 5 10 15

Arg Ile Thr Lys
20

<210> 15
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> misc_feature
<223> Peptide motif

<400> 15

Met Ile Val Val Lys Asp Glu Ser Ser Pro
1 5 10

<210> 16
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> misc_feature
<223> N-myristylation site

<400> 16

Gly Ser Glu Val Ala Arg
1 5

<210> 17
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> misc_feature
<223> N-myristylation site

<400> 17

Gly Ile Lys Tyr Thr Arg
1 5

<210> 18
 <211> 6
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> misc_feature
 <223> N-myristylation site

<400> 18

Gly Val Ala Lys Asn Leu
 1 5

<210> 19
 <211> 6
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> misc_feature
 <223> N-myristylation site

<400> 19

Gly Leu Leu Ala Thr Gly
 1 5

<210> 20
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> misc_feature
 <223> oligonucleotide

<400> 20
 ggtaccggg gatcctctag agtcgacctg cag

33

<210> 21
 <211> 29
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> misc_feature
 <223> oligonucleotide

<400> 21
 tttcctgaaa agcttattca gcacccgaa

29

<210> 22
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> misc_feature
<223> oligonucleotide

<400> 22
atggtgcacc tgactgatgt tgagaag

27

<210> 23
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> misc_feature
<223> Peptide motif

<400> 23

Leu Leu Ile Val Asp Ser
1 5

<210> 24
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> misc_feature
<223> peptide motif

<400> 24

Leu Ile Val Val Asp Ser
1 5

<210> 25
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> misc_feature
<223> Peptide motif

<400> 25

Val Ile Val Val Asp Ser
1 5

<210> 26
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> misc_feature
<223> Peptide motif

<400> 26

Met Ile Ala Leu Lys Asp Glu Thr Asn Pro
1 5 10

<210> 27
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> misc_feature
<223> Peptide motif

<400> 27

Ile Leu Val Val Lys Asp Pro Ala Ala Pro
1 5 10

<210> 28
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> misc_feature
<223> Peptide motif

<400> 28

Met Ile Ala Val Asp Val Glu Met Gly Glu
1 5 10

<210> 29
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> misc_feature
<223> Peptide motif

<400> 29

Lys Gly Phe Ser Ser Glu
1 5

<210> 30

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> misc_feature

<223> Peptide motif

<400> 30

Ile Lys Asp Glu Pro
1 5

<210> 31

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> misc_feature

<223> Peptide motif

<400> 31

Lys Asp Gly Ser Ser Glu
1 5

<210> 32

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> misc_feature

<223> Peptide motif

<400> 32

Gly Phe Ser Ser Pro
1 5